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# MANUFACTURE OF SEMICONDUCTOR DEVICE

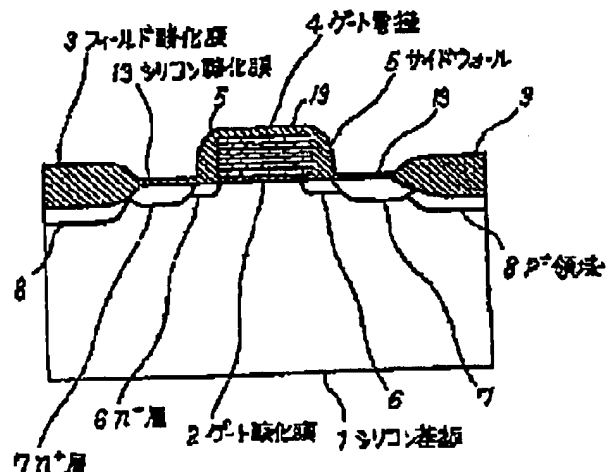
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## Abstract of JP5251463

**PURPOSE:** To eliminate trapping of hot carrier by forming an impurity diffused layer in a low concentration of LDD structure and then heating such layer in the temperature range of 900 to 1200 deg.C which is higher than the temperature for decomposing fluorine using a lamp annealer under the atmosphere including a fluoride but not including carbon which is decomposed at 1200 deg.C or lower.

**CONSTITUTION:** Fluorine is introduced to a gate oxide film 2 prior to formation of a silicon oxide film in order to recover damage generated at the gate oxide film 2 on an n<->-type layer due to the etching for forming a gate electrode and ion implantation for forming the n<->-type layer. Therefore, a fluoride which is decomposed at 1200 deg.C or lower and does not include carbon, e.g. sulfur hexafluoride gas which is decomposed at 400 deg.C is introduced into a lamp annealer and it is then heated for a minute at 1000 deg.C. Thereby, reliability of device can be improved remarkably.



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